Section 1: Product and Company Identification

Gas and Supply
125 Thruway Park
Broussard, LA 70518
877-441-7311
Fax: 337-839-8235
www.gasandsupply.com

Product Code: Acetylene
Synonyms: Ethyne; Ethine; Narcylen; C2H2; Acetylen; UN 1001; Vinylene
Recommended Use: Synthetic/Analytical chemistry

Section 2: Hazards Identification

Hazard Classification:
FLAMMABLE GASES - Category 1
GASES UNDER PRESSURE - Compressed gas

Hazard Statements:
Extremely flammable gas.
May form explosive mixtures with air.
Contains gas under pressure; may explode if heated. May displace oxygen and cause rapid suffocation.

Precautionary Statements
P202 - Do not handle until all safety precautions have been read and understood
P271 - Use only outdoors or in a well-ventilated area
P280 - Wear eye protection, face protection, protective gloves, protective clothing
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P308+P313 - If exposed or concerned: Get medical advice/attention
P403 - Store in a well-ventilated place
P501 - Dispose of contents/container in accordance with local/regional/national/international regulations
CGA-PG02 - Protect from sunlight when ambient temperature exceeds 52°C (125°F)
CGA-PG05 - Use a back flow preventive device in the piping
CGA-PG06 - Close valve after each use and when empty
CGA-PG10 - Use only with equipment rated for cylinder pressure
CGA-PG14 - Approach suspected leak area with caution
CGA-PG21 - Open valve slowly
Prevention:
Never put cylinders into unventilated areas of passenger vehicles. Keep away from heat, sparks, open flames and hot surfaces. - No smoking.

Response:
Leaking gas fire: Do not extinguish, unless leak can be stopped safely. Eliminate all ignition sources if safe to do so.

Storage:
Store in a well-ventilated place. Keep container tightly closed.
Protect from sunlight.
Store locked up.

Disposal:
Dispose of contents and/or container in accordance with applicable regulations.

Section 3: Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Chemical Substance</th>
<th>Chemical Family</th>
<th>Trade Names</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACETYLENE, DISSOLVED</td>
<td>hydrocarbons, aliphatic</td>
<td>ACETYLENE; ETHYNE; WELDING GAS; ACETYLEN; ETHINE; NARCYLEN; VINYLENE; UN 1001; C2H2</td>
</tr>
</tbody>
</table>

Section 4: First Aid Measures

<table>
<thead>
<tr>
<th>Skin Contact</th>
<th>Eye Contact</th>
<th>Ingestion</th>
<th>Inhalation</th>
<th>Note to Physicians</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas: Not applicable.</td>
<td>Liquid: Wash exposed skin with soap and water.</td>
<td>Liquid: Flush eyes with plenty of water.</td>
<td>Ingestion is not considered a potential route of exposure</td>
<td>If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.</td>
</tr>
</tbody>
</table>

Section 5: Fire Fighting Measures

<table>
<thead>
<tr>
<th>Suitable Extinguishing Media</th>
<th>Products of Combustion</th>
<th>Protection of Firefighters</th>
</tr>
</thead>
</table>
| Carbon dioxide, regular dry chemical | Oxides of carbon | • Respiratory protection may be needed for frequent or heavy exposure.  
• Any self-contained breathing apparatus with a full facepiece. |
Large fires: Use regular foam or flood with fine water spray.
### Section 7: Handling and Storage

<table>
<thead>
<tr>
<th>Handling</th>
<th>Storage</th>
</tr>
</thead>
</table>

### Section 8: Exposure Controls/Personal Protection

#### Exposure Guidelines

**ACETYLENE, DISSOVED: ACETYLENE: ACGIH (simple asphyxiant) 2500 ppm (2662 mg/m3) NIOSH recommended ceiling**

**Engineering Controls**
Handle only in fully enclosed systems or with adequate ventilation.

<table>
<thead>
<tr>
<th>Eye Protection</th>
<th>Skin Protection</th>
<th>Respiratory Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye protection not required, but recommended.</td>
<td>Protective clothing is not required.</td>
<td>Respiratory protection may be needed for frequent or heavy exposure.</td>
</tr>
</tbody>
</table>

**General Hygiene considerations**
- Avoid breathing vapor or mist
- Avoid contact with eyes and skin
- Wash thoroughly after handling and before eating or drinking

### Section 9: Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Appearance</th>
<th>Color</th>
<th>Change in Appearance</th>
<th>Physical Form</th>
<th>Odor</th>
<th>Taste</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas</td>
<td>Colorless</td>
<td>Colorless</td>
<td>N/A</td>
<td>Liquefied gas</td>
<td>Sweet odor</td>
<td>N/A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Flash Point</th>
<th>Flammability</th>
<th>Partition Coefficient</th>
<th>Autoignition Temperature</th>
<th>Upper Explosive Limits</th>
<th>Lower Explosive Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammable gas. Can be ignited at all normal temperatures. A flash point of 0 F (-18 C) (CC) has been reported.</td>
<td>2691.53 (log = 3.44) (estimated from water solubility)</td>
<td>581 F (305 C)</td>
<td>81%; 100% if there is a substantial energy ignition source, and under certain conditions of pressure, container size and shape.</td>
<td>0.025</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Boiling Point</th>
<th>Freezing Point</th>
<th>Vapor Pressure</th>
<th>Vapor Density</th>
<th>Specific Gravity</th>
<th>Water Solubility</th>
<th>pH</th>
<th>Odor Threshold</th>
<th>Evaporation Rate</th>
<th>Viscosity</th>
</tr>
</thead>
</table>

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<th>pH</th>
<th>Odor Threshold</th>
<th>Evaporation Rate</th>
<th>Viscosity</th>
</tr>
</thead>
<tbody>
<tr>
<td>-103 °F (-75 °C) @ 170 kPa abs (24.7 psi abs) or 69 kPa gage (10 psi gage)</td>
<td>Not available</td>
<td>760 mmHg @ -64 °C</td>
<td>0.9 (Air=1)</td>
<td>Not applicable</td>
<td>0.94% @ 25 °C</td>
<td>Not applicable</td>
<td>240 mg/m³ (226 ppm) (detection) (4); 657 mg/m³ (620 ppm) (not specified) (8) 1300-2750 mg/m³ (1222-2585 ppm) (not specified)</td>
<td>Not applicable</td>
<td>0.010 cP @ 20 °C</td>
</tr>
</tbody>
</table>

Molecular Weight | Molecular Formula | Density | Weight per Gallon | Volatility by Volume | Volatility | Solvent Solubility |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>26.04</td>
<td>H-C-C-H</td>
<td>1.1747 g/L @ 0 °C</td>
<td>Not available</td>
<td>Not available</td>
<td>Not applicable</td>
<td>Soluble: Acetone, benzene, chloroform, ether</td>
</tr>
</tbody>
</table>

### Section 10: Stability and Reactivity

<table>
<thead>
<tr>
<th>Stability</th>
<th>Conditions to Avoid</th>
<th>Incompatible Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>May decompose violently on heating. May explode when heated.</td>
<td>May decompose violently on heating. May explode when heated.</td>
<td>Metals, halogens, oxidizing materials, metal carbide, reducing agents, halo carbons BRASS, CALCIUM HYPOCHLORITE, COPPER, MERCURY AND SILVER SALTS, HALOGENS, HEAVY METALS, HYDRIDES, LIQUID NITROGEN, NITRIC ACID, OXYGEN, OZONE, PERCHLORIC ACID, POTASSIUM</td>
</tr>
</tbody>
</table>

Hazardous Decomposition Products

Hydrogen

Polymerizes with evolution of heat. Avoid contact with curing agents, accelerators, and/or initiators.

### Section 11: Toxicology Information

#### Acute Effects

<table>
<thead>
<tr>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not established</td>
<td>Not established</td>
<td>Nausea, vomiting, chest pain, wheezing, headache, drowsiness, dizziness, loss of coordination, bluish skin color, suffocation, lung congestion, coma</td>
</tr>
</tbody>
</table>

#### Eye Irritation | Skin Irritation | Sensitization |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No information on significant adverse effects</td>
<td>Rash</td>
<td>Central nervous system depression, difficulty breathing, asphyxiant</td>
</tr>
</tbody>
</table>

### Chronic Effects

<table>
<thead>
<tr>
<th>Carcinogenicity</th>
<th>Mutagenicity</th>
<th>Reproductive Effects</th>
<th>Developmental Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not established</td>
<td>Not established</td>
<td>Not established</td>
<td>No data</td>
</tr>
</tbody>
</table>

### Section 12: Ecological Information

#### Fate and Transport

<table>
<thead>
<tr>
<th>Eco toxicity</th>
<th>Persistence / Degradability</th>
<th>Bioaccumulation / Accumulation</th>
<th>Mobility in Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fish toxicity: Not available</td>
<td>Invertebrate toxicity: Not available</td>
<td>Algal toxicity: Not available</td>
<td>Phyto toxicity: Not available</td>
</tr>
</tbody>
</table>
## Section 13: Disposal Considerations

Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): D001, D003.

## Section 14: Transportation Information

### U.S. DOT 49 CFR 172.101

<table>
<thead>
<tr>
<th>Proper Shipping Name</th>
<th>ID Number</th>
<th>Hazard Class or Division</th>
<th>Packing Group</th>
<th>Labeling Requirements</th>
<th>Passenger Aircraft or Railcar Quantity Limitations</th>
<th>Cargo Aircraft Only Quantity Limitations</th>
<th>Additional Shipping Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetylene, dissolved</td>
<td>UN1001</td>
<td>2.1</td>
<td>Not applicable</td>
<td>2.1</td>
<td>Forbidden</td>
<td>15 kg</td>
<td>N/A</td>
</tr>
</tbody>
</table>

### Canadian Transportation of Dangerous Goods

<table>
<thead>
<tr>
<th>Shipping Name</th>
<th>UN Number</th>
<th>Class</th>
<th>Packing Group / Risk Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetylene, dissolved</td>
<td>UN1001</td>
<td>2.1</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

## Section 15: Regulatory Information

### U.S. Regulations

- **CERCLA Sections**
  - SARA 355.30
  - SARA 355.40
  - Not regulated.

- **SARA 370.21**
  - Acute: Yes
  - Chronic: No
  - Fire: Yes
  - Reactive: Yes
  - Sudden Release: Yes

- **SARA 372.65**
  - Not regulated.

### OSHA Process Safety

- Not regulated.

### State Regulations

- **CA Proposition 65**
  - Not regulated.

### Canadian Regulations

- **WHMIS Classification**
  - A, B1

### National Inventory Status

- **US Inventory (TSCA)**
  - Listed on inventory.
- **TSCA 12b Export Notification**
  - Not listed.
- **Canada Inventory (DSL/NDSL)**
  - Not determined.

## Section 16: Other Information

### NFPA Rating

**HEALTH=1 FIRE=4 REACTIVITY=3**

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard